

Amendments to the Claims

Please cancel Claims 14 and 15 without prejudice to or disclaimer of the subject matter recited therein.

Please amend Claims 1-13, and add new Claims 16-19 to read as follows.

1. (Currently amended) An ink-jet printing method for performing printing by scanning an ink-jet printhead over a print medium, ~~said the~~ the ink-jet printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, said method comprising:
 - a selecting step of selecting a mode, which is to be used in printing, from a plurality of modes including a first mode in which printing in a prescribed area on the print medium is completed in a predetermined ~~time~~; time and a second mode in which printing in the prescribed area is completed in a time longer than the predetermined time, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume;
 - a data generating step of executing data processing and generating print data in accordance with the mode selected; and
 - a printing step of carrying out printing by discharging ink toward the print medium from the ink-jet printhead based upon the print data ~~generated~~; generated,wherein ~~in said data generating step, data processing is executed in such a manner that~~ a number of ink droplets of the second volume used in printing an area ~~of a~~

~~high~~ expressing maximum density ~~or high saturation~~ in regard to a prescribed color in the first mode ~~will be~~ is less than a number of ink droplets of the second volume used in printing ~~this~~ the area in the second mode.

2. (Currently amended, withdrawn) The method according to claim 1, wherein ~~said data-generating step is such that in a case where an~~ in the first mode, the area of expressing maximum density ~~or maximum saturation~~ with regard to the prescribed color is printed ~~in the first mode, data processing is executed in such a manner that printing of~~ said area will be carried out using ink droplets of the first volume without using ink droplets of the second volume.

3. (Currently amended, withdrawn) An ink-jet printing method for performing printing by scanning an ink-jet printhead over a print medium, ~~said~~ the ink-jet printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, said method comprising:

a selecting step of selecting a mode, which is to be used in printing, from a plurality of modes including a first mode in which printing in a prescribed area on the print medium is performed by scanning the ink-jet printhead a predetermined number of times and a second mode in which printing in the prescribed area is performed by scanning the ink-jet printhead a number of times greater than the predetermined number of times, each

of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume;

an image processing step of executing image data processing that conforms to the mode selected; and

a printing step of carrying out printing by discharging ink toward the print medium from the ink-jet printhead based upon data that has undergone the image processing, data processing,

wherein said image data processing step is such that (A) in a case where the first mode has been selected, image data processing is executed in such a manner that a ~~maximum-density area, which is an area of~~ expressing maximum density with regard to a prescribed color, or a ~~maximum-saturation area, which is an area of maximum saturation with regard to a prescribed color,~~ color will be printed using the ink droplets of the first volume rather than the ink droplets of the second volume, and (B) in a case where the second mode has been selected, image data processing is executed in such a manner that the ~~maximum-density area~~ expressing maximum density or ~~maximum-saturation area~~ will be printed using both the ink droplets of the first volume and the ink droplets of the second volume.

4. (Currently amended) A printing system comprising an ink-jet printing apparatus and a host device for transmitting print data to said printing apparatus, wherein said printing apparatus performs printing by scanning an ink-jet printhead over a print medium, the printhead having orifices for discharging ink droplets of a first volume

and orifices for discharging ink droplets of a second volume smaller than the first volume, and said printing apparatus is capable of printing in ~~either~~ a plurality of modes including a first mode in which printing in a prescribed area on the print medium is completed in a predetermined time, or and a second mode in which printing in the prescribed area is completed in a time longer than the predetermined time; time, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume,

said host device including:

mode selecting means for allowing a user to select a mode, which is to be used in printing, from the ~~first and second~~ plurality of modes; and

data processing means for executing data processing and generating print data in accordance with the mode selected by said mode selecting ~~means; means,~~

said data processing means executing data processing in such a manner that a number of ink droplets of the second volume used in printing an area ~~of a high~~ expressing maximum density or high saturation in regard to a prescribed color in the first mode ~~will be~~ is less than a number of ink droplets of the second volume used in printing ~~this the~~ the area in the second mode.

5. (Currently amended, withdrawn) The system according to claim 4, wherein in ~~a case where an~~ the first mode, the area of expressing maximum density ~~or maximum saturation~~ with regard to the prescribed color is printed in the first mode, said ~~data generating means executes data processing in such a manner that printing of said area~~

~~will be carried out using ink droplets of the first volume~~ without using ink droplets of the second volume.

6. (Currently amended, withdrawn) A printing system comprising an ink-jet printing apparatus and a host device for transmitting print data to said printing apparatus, wherein said printing apparatus performs printing by scanning an ink-jet printhead over a print medium, the printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, and said printing apparatus is capable of printing in ~~either~~ a plurality of modes including a first mode in which printing in a prescribed area on the print medium is performed by scanning the ink-jet printhead a predetermined number of times and a second mode in which printing in the prescribed area is performed by scanning the ink-jet printhead a number of times greater than the predetermined number of ~~times; times, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume,~~

said host device including:

mode selecting means for allowing a user to select a mode, which is to be used in printing, from the ~~first and second~~ plurality of modes;

image processing means for executing ~~image~~ data processing that conforms to the mode selected by said mode selecting means; and

means for transmitting data that has undergone the ~~image~~ data processing to said printing apparatus; and

said printing apparatus including:

printing control means for carrying out printing by discharging ink toward the print medium from the ink-jet printhead based upon the data ~~transmitted;~~ transmitted,

wherein ~~the~~ said image processing means of said host device executes ~~image~~ data processing in such a manner that (A) in a case where the first mode has been selected, ~~a maximum-density area, which is an area of~~ expressing maximum density with regard to a prescribed color, ~~or a maximum-saturation area, which is an area of maximum saturation with regard to a prescribed color,~~ color will be printed using the ink droplets of the first volume rather than the ink droplets of the second volume, and (B) in a case where the second mode has been selected, the ~~maximum-density area~~ expressing maximum density or maximum-saturation area will be printed using both the ink droplets of the first volume and the ink droplets of the second volume.

7. (Currently amended) An ink-jet printing apparatus for performing printing by scanning an ink-jet printhead over a print medium, the printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, and said apparatus being capable of printing in ~~either~~ a plurality of modes including a first mode in which printing in a prescribed area on the print medium is completed in a predetermined time, ~~or~~ and a second mode in which printing in the prescribed area is completed in a time longer than the predetermined time, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume, said apparatus comprising:

mode discriminating means for discriminating which of the ~~first and second~~
plurality of modes has been set;

converting means for converting entered image data to print data in
accordance with the mode discriminated by said mode discriminating means; and

printing control means for carrying out printing by discharging ink toward
the print medium from the ink-jet printhead based upon the print ~~data~~; data.

said converting means performing a data conversion in such a manner that a
number of ink droplets of the second volume used in printing an area ~~of a high~~ expressing
maximum density ~~or high saturation~~ in regard to a prescribed color in the first mode ~~will be~~
is less than a number of ink droplets of the second volume used in printing ~~this~~ the area in
the second mode.

8. (Currently amended, withdrawn) The apparatus according to claim
7, wherein in the first mode, the ~~a case where an~~ area of expressing maximum density ~~or~~
~~maximum saturation~~ with regard to the prescribed color is printed ~~in the first mode~~, said
~~converting means executes the data conversion in such a manner that printing of said area~~
~~will be carried out~~ using ink droplets of the first volume without using ink droplets of the
second volume.

9. (Currently amended, withdrawn) An ink-jet printing apparatus for
performing printing by scanning an ink-jet printhead over a print medium, the printhead
having orifices for discharging ink droplets of a first volume and orifices for discharging

ink droplets of a second volume smaller than the first volume, and said printing apparatus being capable of printing in ~~either~~ a plurality of modes including a first mode in which printing in a prescribed area on the print medium is performed by scanning the ink-jet printhead a predetermined number of times and a second mode in which printing in the prescribed area is performed by scanning the ink-jet printhead a number of times greater than the predetermined number of times, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume, said apparatus comprising:

mode discriminating means for discriminating which of the ~~first and second~~ plurality of modes has been set;

image processing means for executing ~~image~~ data processing that conforms to the mode discriminated by said mode discriminating means; and

printing control means for carrying out printing by discharging ink toward the print medium from the ink-jet printhead based upon data that has undergone the ~~image processing~~; data processing.

wherein said image processing means executes ~~image~~ data processing in such a manner that (A) in a case where the first mode has been selected, ~~a maximum-density area, which is an area of expressing maximum density with regard to a prescribed color, or a maximum-saturation area, which is an area of maximum saturation with regard to a prescribed color~~, color will be printed using the ink droplets of the first volume rather than the ink droplets of the second volume, and (B) in a case where the second mode has been selected, the ~~maximum-density~~ area expressing maximum density or maximum-

~~saturation area~~ will be printed using both the ink droplets of the first volume and the ink droplets of the second volume.

10. (Currently amended) A method of generating print data for use by an ink-jet printing apparatus that performs printing by scanning an ink-jet printhead over a print medium, the printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, said method comprising:

a selecting step of selecting a mode, which is to be used in printing, from a plurality of modes including a first mode in which printing in a prescribed area on the print medium is completed in a predetermined time, and a second mode in which printing in the prescribed area is completed in a time longer than the predetermined time, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume; and

a data generating step of executing data processing and generating print data in accordance with the mode ~~selected;~~ selected,

wherein ~~in said data generating step, data processing is executed in such a manner that~~ a number of ink droplets of the second volume used in printing an area of a ~~high~~ expressing maximum density ~~or high saturation~~ in regard to a prescribed color in the first mode ~~will be~~ is less than a number of ink droplets of the second volume used in printing ~~this~~ the area in the second mode.

11. (Currently amended, withdrawn) The method according to claim 10, wherein in the first mode, the said data generating step is such that in a case where an area of expressing maximum density or maximum saturation with regard to the prescribed color is printed in the first mode, data processing is executed in such a manner that printing of ~~said area will be carried out~~ using ink droplets of the first volume without using ink droplets of the second volume.

12. (Currently amended, withdrawn) A method of generating print data for use by an ink-jet printing apparatus that performs printing by scanning an ink-jet printhead over a print medium, the printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, said method comprising:

a selecting step of selecting a mode, which is to be used in printing, from a plurality of modes including a first mode in which printing in a prescribed area on the print medium is performed by scanning the ink-jet printhead a predetermined number of times and a second mode in which printing in the prescribed area is performed by scanning the ink-jet printhead a number of times greater than the predetermined number of times, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume; and

a data generating step of executing image processing that conforms to the mode selected and generating print ~~data;~~ data.

wherein said data generating step is such that (A) in a case where the first mode has been selected, image data processing is executed in such a manner that a ~~maximum-density area, which is an area of expressing~~ maximum density with regard to a prescribed color, ~~or a maximum-saturation area, which is an area of maximum saturation with regard to a prescribed color,~~ color will be printed using the ink droplets of the first volume rather than the ink droplets of the second volume, and (B) in a case where the second mode has been selected, image data processing is executed in such a manner that the ~~maximum-density area expressing maximum density or maximum-saturation area~~ will be printed using both the ink droplets of the first volume and the ink droplets of the second volume.

13. (Currently amended, withdrawn) A program for generating print data to be transmitted to an ink-jet printing apparatus that performs printing by scanning an ink-jet printhead over a print medium, the printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, said program causing a computer to execute:

a selecting step of selecting a mode, which is to be used in printing, from a plurality of modes including a first mode in which printing in a prescribed area on the print medium is performed by scanning the ink-jet printhead a predetermined number of times and a second mode in which printing in the prescribed area is performed by scanning the ink-jet printhead a number of times greater than the predetermined number of times, each

of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume; and

a data processing step of executing data processing in such a manner that (A) in a case where the mode selected is the first mode, ~~a maximum-density area, which is an area of expressing maximum density with regard to a prescribed color, or a maximum-saturation area, which is an area of maximum saturation with regard to a prescribed color,~~ color will be printed using the ink droplets of the first volume rather than the ink droplets of the second volume, and (B) in a case where the selected mode is the second mode, the ~~maximum-density area~~ expressing maximum density ~~or maximum-saturation area~~ will be printed using both the ink droplets of the first volume and the ink droplets of the second volume; and

a step of transmitting data, which has been processed at said data processing step, to ~~said~~ the ink-jet printing apparatus as print data.

Claims 14 and 15 (cancelled)

16. (New) The method according to claim 1, wherein a number of scannings of the ink-jet printhead for the prescribed area in the first mode is less than a number of scannings of the ink-jet printhead for the prescribed area in the second mode.

17. (New) The method according to claim 1, wherein a scanning speed of the ink-jet printhead in the first mode is greater than a scanning speed of the ink-jet printhead in the second mode.

18. (New) An ink-jet printing method for performing printing by scanning an ink-jet printhead over a print medium, the ink-jet printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, said method comprising:

a selecting step of selecting a mode, which is to be used in printing, from a plurality of modes including a first mode in which printing in a prescribed area on the print medium is completed in a predetermined time and a second mode in which printing in the prescribed area is completed in a time longer than the predetermined time, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume;

a data generating step of generating print data in accordance with the mode selected; and

a printing step of carrying out printing by discharging ink toward the print medium from the ink-jet printhead based upon the print data generated,

wherein a number of ink droplets of the second volume used in printing an area expressing maximum saturation in regard to a prescribed color in the first mode is less than a number of ink droplets of the second volume used in printing the area expressing maximum saturation in the second mode.

19. (New) An ink-jet printing method for performing printing by scanning an ink-jet printhead over a print medium, said ink-jet printhead having orifices for discharging ink droplets of a first volume and orifices for discharging ink droplets of a second volume smaller than the first volume, said method comprising:

a selecting step of selecting a mode, which is to be used in printing, from a plurality of modes including a first mode in which printing in a prescribed area on the print medium is performed by scanning the ink-jet printhead a predetermined number of times and a second mode in which printing in the prescribed area is performed by scanning the ink-jet printhead a number of times greater than the predetermined number of times, each of the first mode and the second mode carrying out printing using the ink droplets of the first volume and the ink droplets of the second volume;

an image processing step of executing data processing that conforms to the mode selected; and

a printing step of carrying out printing by discharging ink toward the print medium from the ink-jet printhead based upon data that has undergone the data processing,

wherein said data processing step is such that (A) in a case where the first mode has been selected, data processing is executed in such a manner that an area expressing maximum saturation with regard to a prescribed color will be printed using the ink droplets of the first volume rather than the ink droplets of the second volume, and (B) in a case where the second mode has been selected, data processing is executed in such a manner that the area expressing maximum saturation will be printed using both the ink droplets of the first volume and the ink droplets of the second volume.